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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,762	01/31/2006	Jens Bretchneider	DE030266	6169
65913	7590	06/12/2007		
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			EXAMINER NGUYEN, KHAI M	
			ART UNIT	PAPER NUMBER
			2819	
			MAIL DATE	DELIVERY MODE
			06/12/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/566,762

**Applicant(s)**

BRETCHNEIDER, JENS

**Examiner**

Khai M. Nguyen

**Art Unit**

2819

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-16 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2, 8 and 26 is/are rejected.
- 7) ☒ Claim(s) 3-7, and 9-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/31/2006 (Fig. 1) is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The indicated allowability of claims **2, 8, and 26** is withdrawn in view of Campbell, Jr. et al. (US 5,081,454).
2. The drawing of **Fig. 1** (filed 1/31/2006) is objected to because it contains blocks that have no identifying texts (e.g., blocks 1-5, 7-9, 26... 29). Correction is required when the case is allowed.
3. The remarks (page 8) filed on March 7, 2007 are fully considered. The examiner noted that the response is incomplete because the applicant fails to response some of the objections in the last office action (see the office action mailed on 9/7/2006). Correction is required.
4. Claims 1 and 17-25 have been cancelled (by the applicant, see the remarks, page 8, filed on March 7, 2007. Thus, these claims are withdrawn from consideration by the examiner. The examiner noted that the text of claims 21-24 has not been removed. Deletion of claims 21-24 is required in response to this office action.
5. Claims 2-16 and 26 are pending.

### ***Specification***

6. The application has not been checked to the extent necessary to determine the presence of all possible typographical and grammatical errors. However, Applicant's cooperation is requested in correcting any errors of which he/she may become aware in the application.

7. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

8. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### ***Arrangement of the Specification***

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.

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- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

### ***Claim Objections***

9. Claim 3 is objected because the object of this claim is unclear or lacks antecedent basis - "the calculations... for the expiry of the multichannel..." have not been defined in claim 3 or 2. Clarification is required.

### ***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2, 8, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Campbell, Jr. et al. (US 5,081,454), hereinafter referred to as "Campbell"

Regarding claim 2, Campbell discloses (Figs. 1-21; col. 5, lines 49-60) a method of multi-channel analog/digital (A/D) conversion (title and abstract), in which in a first

(first channel output of 16:2 mux 28, Fig. 2) and second (second channel output of 16:2 mux 28, Fig. 2) channel respectively in a first or second channel provision area (areas that contain circuits 40 & 42 of Fig. 2), a first (first analog output of the mux 28, Fig. 2) and second (second analog output of the 16:2 mux 28, Fig. 2) analog signal awaiting conversion is sampled by a respective first (sample and hold circuit 40 of Fig. 2) and second (sample and hold circuit 42 of Fig. 2) S/H (Sample & Hold) element and the respectively stored sample value (i.e., sample and hold or store value of the S/H circuits 40/42) thereof is applied as a channel sample to a first and second input of an analog multiplexer (2:1 mux 44 of Fig. 2) for selection, wherein the processing of the respective channel sample then takes place in a processing cycle of all channels by said channel sample being selected in the analog multiplexer by a digital selection control signal (control signal provided from circuit 60 of Fig. 2) for the analog/digital conversion and provided as analog selection signal at an output of the analog multiplexer (44) and, after the respective channel provision area, being converted in an analog/digital converter (ADC 52 of Fig. 2), wherein an order of processing the channel sample detected in the respective first or second channel provision area, which channel sample is provided by the analog selection signal (output of the 2:1 mux 44) in an A/D conversion provision area (that contains the ADC 52 of Fig. 2) and then converted by the A/D converter (52), is calculated (i.e., the input sample time for each of the plurality of channels is pre-computed or pre-programmed and loaded into a table or register) and determined individually for each channel sample by a channel controller (by circuits 46 and 60 of Fig. 2 – col. 2, lines 40-46, lines 59-68).

Regarding claim 2, Campbell discloses (Figs. 1-21; col. 5, lines 49-60) a method as claimed in claim 2, wherein the rules for individually (col. 2, lines 40-45) calculating (i.e., pre-computed or programmed sample time) the time for processing a respectively detected channel sample are derived by means of metrics implemented in the channel controller (controller including circuits 46, 48, 60, 62, and 64).

Regarding claim 26, Campbell discloses (Figs. 1-21; col. 5, lines 49-60) an arrangement for multi-channel analog/digital (A/D) conversion, wherein the arrangement samples, by means of a respective first and second S/H (Sample & Hold) element (42 and 44 of Fig. 2), in a first and second channel respectively in a first or second channel provision area (areas that contain the S/H circuits 42 and 44) a first and second analog signal (analog signals output from mux 28 of Fig. 2) awaiting conversion and applies the respectively stored sample value thereof as a channel sample to a first and second input of an analog multiplexer (2:1 mux 44 of Fig. 2) for selection, wherein the arrangement then processes the respective channel sample in a processing cycle of all channels by said channel sample being selected in the analog multiplexer (44) by a digital selection control signal (provided from the circuit 60 of Fig. 2) for the analog/digital conversion and provided as analog selection signal at an output of the analog multiplexer (44) and, after the respective channel provision area, being converted in an analog/digital converter (ADC 52 of Fig. 2), wherein an order of processing the channel sample detected in the respective first or second channel provision area, which channel sample is provided by the analog selection signal () in an

A/D conversion provision area and then converted by the A/D converter, is calculated (i.e., the input sample time for each of the plurality of channels is pre-computed or pre-programmed and loaded into a table or register) and determined individually for each channel sample by a channel controller (by circuits 46 and 60 of Fig. 2 – col. 2, lines 40-46, lines 59-68).

***Allowable Subject Matter***

11. Claims 3-7 and 9-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the references of record fail to teach the recited combinations including the subject matters of the dependent claims.

***Contact Information***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khai M. Nguyen whose telephone number is 571-272-1809. The examiner can normally be reached on 9:00 - 5:30 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford (Rex) Barnie can be reached on 571-272-7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



June 5, 2007  
Khai M. Nguyen  
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571-272-1809